

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 02015044  
PUBLICATION DATE : 18-01-90

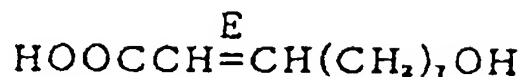
APPLICATION DATE : 01-07-88  
APPLICATION NUMBER : 63164379

APPLICANT : SHIN ETSU CHEM CO LTD;

INVENTOR : YAMAMOTO AKIRA;

INT.CL. : C07C 59/42 C07C 51/367 // C07C  
69/145

TITLE : PRODUCTION OF ROYAL JELLY ACID



ABSTRACT : PURPOSE: To readily obtain 10-hydroxy-E-2-decenoic acid in high yield by reacting an 8-chloro-1-octynylmagnesium halide with a trialkyl orthoformate, hydrogenating the resultant reaction product and then utilizing the Grignard reaction.

CONSTITUTION: An 8-chloro-1-octynylmagnesium halide is reacted with a trialkyl orthoformate at 85-90°C for 6-20hr and then hydrogenated in the presence of Pd-2Ni catalyst, etc., to provide a 9-chloro-2-nonenal dialkyl acetal, which is subsequently reacted with Mg to afford a Grignard reagent. The resultant Grignard reagent is then reacted with paraformaldehyde at 70°C, acetylated and then hydrolyzed to form 10-acetoxy-E-2-decenal, which is subsequently oxidized and hydrolyzed at 40-70°C in a NaOH-methanol system. The reaction solution is once acidified, then extracted and crystallized to afford the compound expressed by the formula.

COPYRIGHT: (C)1990,JPO&Japio